Israeli Military Exports

By

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Israel's deficiencies of size, industrial raw materials and economic trading power limit its development into a major national defense manufacturer and exporter. Yet over the last decade the Israelis have carved a modest niche for themselves in the international arms field by maximizing the few comparative advantages available to them, such as their cumulative battlefield experience with Western or indigenous defense systems against Soviet-supplied Arab armies.

Israel ranks among the important second tier of arms producers and suppliers after the first tier, which includes the United States, the Soviet Union and France. Both the U.S. Arms Control and Disarmament Agency and the Stockholm International Peace Research Institute (SIPRI) list Israel as a top Third World defense exporter along with China and Brazil. Foreign security assistance by Israel during the 1980s is unofficially estimated at averaging close to $1 billion annually, roughly equivalent to one-quarter of total industrial export. Little wonder, therefore, that Israel's formula for integrating security concerns and economic incentives with diplomatic goals serves as a model for newly industrializing countries (NICs) seeking an effective defense production and sales policy.

Israel might have good reason to savor its hard-won success if not for some recent indications that the country's status in the conventional arms trade is far from assured. The ambitious program of indigenous militarization centering on local research, design, production and export of sophisticated weaponry is currently threatened by two negative trends. At home, the price of this domestic arms-making process is becoming prohibitive. Arguably the overseas market could compensate by helping to recoup the initial startup costs of these defense projects. Except that Israel, like other aspiring Third Word arms merchants, is finding the conventional weapons trade increasingly competitive and challenging.

How Israeli leaders respond to this interplay of domestic restraints and world arms market uncertainties will impact heavily on the country's future. To appreciate what is at stake one must begin by looking more closely at the importance of the military industries in Israeli terms--for national security, for diplomatic relations and for economic viability.

ISRAELI ARMS: THE MIX OF MOTIVES

Israel's place in the global defense field is easily and often misrepresented. Contrary to the popular impression fostered by the media, the latest *World Military Expenditures and Arms Transfers* report from the reputable Arms Control and Disarmament Agency positions Israel in 22nd place among arms-exporting nations as of 1985, with less than a one percent (0.8) share of the market. Even if ranked higher for purposes of argument, the fact remains that its role in the international weapons trade is at best marginal. However, the domestic implications are of an entirely different magnitude. Here the role of military manufacture and export is a major factor.

Jerusalem views defense production as a pillar of national security. Armament made in Israel figures in maintaining a high state of military preparedness, providing for emergency stockpiles

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while acting as a hedge against undue dependency on foreign supply sources. In effect, this arms capability has helped preserve Israel's slim quantitative edge against the Arab threat, making the strategy of deterrence credible by projecting a clear image of military prowess and defensive strength.

Comparable to problems in the European industrialized supplier countries, economic motives are increasingly weighty in the pro-arms argument for Israel. Historically, the Israeli complex of over 100 arms-manufacturing companies and subcontractors have spurred industrialization by demanding excellence and encouraging scientific, professional and managerial skills, by sharing derivative or spin-off benefits with nonmilitary sectors of the economy, and by providing employment for more than 60,000 people. No less persuasive are the economic benefits of exporting defense items for the country's balance of payments as a source of foreign currency and for its international trade. If these defense-related exports were terminated abruptly, or even if they declined appreciably, the effect would be felt throughout an already troubled economy.

Less known in this triad of arms incentives are the uses of overseas military aid and sales by Israel as an instrument of foreign policy. While impossible to gauge exactly, Israeli arms sales have enhanced this small country's influence, prestige and contacts abroad. Defense support has gained diplomatic as well as commercial access to regions and countries outside the immediate Arab confrontation zone.

Arms sales patterns for Israel highlight three other diplomatic objectives. One is to counter Palestine Liberation Organization (PLO) and Arab efforts to deliberately exclude Israel from various Afro-Asian countries, politically isolating it within the international community. Another aim of arms sales is to confirm Israel as a strategic asset for the United States and the Western democracies by promoting stability in areas threatened by subversion. Finally, defense export is defended as helping solidify bonds with Jewish correligionists outside the Jewish state. Argentina, Chile, Ethiopia, Iran and South Africa illustrate the correlation between some recipients of aid from Israel and their control over the civil rights and emigration of resident Jewish communities.

In sum, for a country like Israel whose foreign contacts are rather restricted, defense sales can provide an extra margin for independent diplomatic maneuver. It is impressive how much political mileage Israel has derived from the arms export drive, aside from other security and economic considerations.

ISRAEL'S SUCCESS FORMULA

What explains this success? The answer is found in the past ability of Israel to compensate for its other limitations by harnessing several strong points to full advantage. The country has had essentially five things going for it: (1) commitment, (2) infrastructure, (3) ingenuity, (4) diversification and (5) U.S. assistance.

Commitment. The arms program is made possible thanks to a strong sense of purpose; the military industries and their overseas sales campaign are widely esteemed for their contribution to Israel's overall well-being. This is readily seen in broad public support; a 1987 survey found only 7.9 percent of those polled registering objection to supplying arms abroad.

Infrastructure. Owing to the high priority given the defense sector, Israel possesses the prerequisite of an advanced industrial base able to keep abreast of technological innovation. The military industries possess the skilled manpower necessary for undertaking major arms development projects. Israel is regarded as one of only six developing countries with across-the-board capabilities, meaning the ability to produce each of the four chief types of weapons systems: aircraft, small naval vessels, armored fighting vehicles and missiles. *(See Table 1.)* The

progress made in electronics and communication systems is becoming increasingly important. Such self-confidence led Israel to embark on both the *Lavi* fighter and Merkava tank projects.

Table 1: Defense Products by Israel

Pistols
Uzi 9-mm

Sub-Machine Guns
Uzi 9-mm
Mini-Uzi 9-mm

Machine-Guns/Rifles
Galil 5.56- and 7.62-mm

Small-Caliber Ammunition
5.56-mm
7.62-mm
7.92-mm
9-mm
12.7-mm
.30-06-in
.50-in

Large-Caliber Ammunition (Personnel)
75-mm
76-mm
90-mm
105-mm
155-mm

Artillery Rockets
290-mm MLR System
240-mm Rocket

Antitank Weapons
B-300
106-mm RCL Rifle

Mortars
52-mm
60-mm
81-mm
120-mm
120 mm A-4
120-mm M-65
160-mm M-66

Grenades
No. 5 (smoke)
No. 14 (offensive)
M26A2 (fragmentation)
MA/AP-30 (rifle)
MA/AP-65 (rifle)
MA/AT-52 HEAT (rifle)
SGF-40 (smoke rifle)

Mines
M1A3 (trip-flare)
No. 4 (antipersonnel)
No. 10 (antipersonnel)
No. 12 (antipersonnel)
No. 6 (antitank)
No. 25 (antitank)

Other Equipment
Mazlat
Mini-RPV

Antiaircraft Weapons
TCM-20
TCM Mk-3
TCM-30 (Spider-II)

Aircraft
Amit Magister (trainer)
IAI-201 and 202 Arava (transport)
Kfir-C1, C2, C7 (fighter)
Kfir-TC2 and TC7 (fighter/trainer)
Lavi (fighter bomber)
Magister (trainer)
Nesher (fighter)
Sea Scan (for marine patrol)
Westwind 1124 (transport)

Missiles
Barak
Gabriel-1, 2, 3
Gabriel-3 A/S
Python-3
Shafrir-2

Armored Vehicles
L-33 155mm
M-68 155mm
M-71 155mm
M-72 155 mm
Merkava-1, 2, 3 (main battle tanks)
RAM V-1 and V-2
RBY-1
Shoet Mk-2

Ships
Aliya Class
Dabur Class
Dvora Class
Flagstaff-2 Class (hydrofoil)
Reshef Class
Saar-5 Class (corvette)

Ingenuity. Israel's reputation for ingenuity and resourcefulness appeals to foreign procurement officers in quest of durable, cost-effective weaponry. Enterprises such as Rafael (the Weapons Development Authority), IAI (the Israeli Aircraft Industries) and IMI (the Israeli Military Industries) work closely with the Israel Defense Forces in finding quick practical solutions to urgent battlefield problems as they arise. A case in point is heavy damage inflicted during the 1973 War on Israeli tanks, which led designers to come up with the fairly simply and inexpensive idea of reactive armor plating. This has provided Israeli tank crews and armored carriers with added protection, and is now being marketed abroad.

Diversification. The range of defense items Israel makes and sells also has been a strong card it plays well. By manufacturing at both ends of the armaments spectrum, Israel is able to cope with either of two demands: for rugged, operable weapons and for refurbished equipment like the *Super-Phantom* with its more powerful engine, but also for the growing market in high technologies and smart weapons. Diversification applies as well to the list of clients. In one sense, adversity becomes an advantage in that unlike the other major and secondary arms suppliers, Israel is not dependent on the Middle East market. Rather, it has traditionally sought out customers in other parts of the world instead of limiting itself to one particular client or region.

U.S. Assistance. The assistance provided by the United States enters the equation as a principal asset. This American aid assumes several forms: supply of state-of-the-art weaponry, transfers of military technology and scientific know-how, and not least, direct military financial support now standing at $1.8 billion in grants. The latter is invaluable. Authorization to use portions of these funds on military R&D inside Israel boosts the home defense and military industrialization programs by compensating for the shortage of local investment capital to meet Israel's heavy defense burden.

APPLY THE BRAKES

Despite those advantages, Israeli arms enthusiasts concede their program is vulnerable and may even be peaking at mid-decade. A number of developments on the home front lately, but also outside the country, have stressed limitations on the defense sales campaign and on Israel's independence of action where the military industries are concerned.

The series of setbacks really began in 1978 when the Iranian revolution deprived Israel of a major customer. Clandestine resupply to the Khomeini regime against the background of the Persian Gulf war of attrition in no way compensates, being on a much lower scale; furthermore, it has been an embarrassment, with the Irangate affair bringing Israel adverse publicity. Similarly, Israel's defense trade with South Africa is having negative effects. In March 1987 the government announced its decision to phase out military ties with Pretoria. As this policy of not entering into any new agreements with South Africa is implemented, it will mean a further drop in arms sales. By the same token, should foreign reports of a discreet arms connection with Peking be true, judging from the difficulties encountered by Western weapons merchants in dealing with the Chinese, that market, too, may not be sufficiently promising for Israel to pick up the slack in export figures.

Then there is the other side of the U.S. relationship. Here Israeli defense officials have suffered two disappointments. The first is that despite pledges of intent by Washington and various offset arrangements, Israel faces serious difficulties in trying to enter the American defense market to win lucrative Pentagon contracts. The second setback focuses on the reluctance of administration officials to give Israel a green light to sell Israeli-made weaponry having American components to third countries. This largely explains, for example, the disappointing sales figures of the *Kfir* fighter and the Merkava tank, each containing an American engine.

These barriers to foreign sales take on added importance in light of the hopes often expressed in Israeli industrial circles for expanded defense export. Overseas transfers increasingly have been viewed as the only remedy to structural difficulties now surfacing in the domestic market.

Indications are that Israel finds itself with an overbuilt defense industry. Defense Minister Yitzhak Rabin admitted earlier this year that both state-owned and private firms were too big for the country. Under the pressure of severe defense budget cutbacks, the domestic market for military goods has been shrinking. Indeed, under the terms of American military assistance, the United States has come to replace the local defense industries as primary supplier to the Israeli Army.

Reduced procurement orders, whether foreign or domestic, would appear to have set off a disturbing chain reaction. Several projects for future weapons development have been cancelled and others completed in modest production runs. Mounting unit-costs, combined with high labor costs in an inflationary economy, make Israeli defense offerings less competitive on the world market. As a result, many arms firms have been forced to lay off thousands of workers--Rabin insisted, despite union opposition, that some 2,000 to 3,000 defense employees would have to be fired in 1987 in addition to the 5,000 released during the previous two years. Some factories like Saltam are producing for inventory only; others, such as the Beit Shemesh Engine Co., are threatened with closure. At present, Israeli arms capacity exceeds demand.

Economies of scale and these other warning signs were highlighted in the sharp and divisive controversy waged recently over the *Lavi*, Israel's multipurpose fighter plane for the 1990s. The technical merits of the *Lavi* aside, the debate underscores the serious restraints on Israel's capacity for continued defense growth. It has neither the financial resources to produce such a jet aircraft, nor any real prospect of exporting the *Lavi*. The *Lavi* affair, regardless of how it is finally resolved, is a blow to Israeli self-confidence. For whether finished with U.S. funding, modified or scrapped, the Lavi signals that Israel in all likelihood will be deleted from the select list of maybe only a half-dozen industrialized countries with the ability to design and independently produce such sophisticated weapons systems.[Editor's note: Resolution of the *Lavi* issue occurred on August 30, 1987, with a 12 to 11 vote in the Israeli Cabinet to cancel development of the fighter. The seven-year old *Lavi* project had cost over $1.5 billion (90% was funded by U.S. security assistance), but it had been beset with extended delays and major cost overruns. Two prototype *Lavis* were already flying at the time of program termination, and 300 aircraft were to be produced by the late 1990s. The U.S. FY1988 FMS Credit appropriation for Israel included a total of $550 million for research and development, of which $400 million was authorized for expenditure in Israel. These funds will be used largely to pay the cumulative costs of terminating previously approved U.S. and Israeli contracts for the *Lavi*.]

RESPONDING TO CHALLENGE

Collectively, this string of reverses points to a general downward trend with the potential for confronting the Israeli defense industries and the related arms diplomacy with their gravest challenge yet. In view of the curbs analyzed above, Israel has one of three options in coping with the crisis and devising a plan for recovery:

- Terminating exports as counterproductive and converting to civilian manufacture;

- Continuing with the policy of boosting exports through diversification, both in military products and Third World clients, and

- Sustaining defense industries and export by revising policy in the direction of product specialization, with the attendant need for being more discriminating in the choice of the customers.

The first alternative of nonmilitary production, however, desirable, is simply unworkable until the Arab threat is lifted and Israel finds itself at peace. For the present, the country has no choice but to persist in the arms race, emphasizing arms development, manufacture and foreign sales.

The second course is the easiest politically and the least dislocating economically. Many Israeli experts tend to dismiss the recent troubles as temporary and unexceptional. They would encourage persisting in Israel's offering for sale the two categories of military goods sought by Third World arms customers: standard ground forces equipment, small arms, ammunition and explosives, while at the same time insisting that despite its impediments Israel is right up there

alongside the major Western aerospace and military manufacturers, vying with them for the demand in major weapons systems.

Realism, confirmed by available statistical data, argues against working both ends of the spectrum. In the field of small arms, Israel faces at least two definite drawbacks. On the one hand, the number of countries marketing these conventional arms wares has multiplied. This competition is made worse, on the other hand, by the undependability of traditional Third World clients. Some are themselves able to meet their needs through local manufacture. Others are debtor countries unable to pay for weapons procurements. Still others are politically and morally questionable because of authoritarian rule and repression. As for the market for complete weapons systems, comparable tanks and aircraft to those sold by Israel are being offered by big suppliers (U.S., Britain, France, Italy, West Germany) at easier trade terms, and are too conspicuous to attract prospective customers fearful of Arab pressure and sanctions for buying from Israel. Again, there is the additional liability of having to obtain American's prior consent before selling the major systems.

SPECIALIZATION IS THE ANSWER

The only other avenue open to Israel, therefore, lies in what can loosely be described as the intermediate area of specialized defense products and subsystems. This includes such things as: retrofit and upgrading of older weapons (*Mirage III, A-4 Skyhawk* and *F-4 Phantoms*, Centurion and Patton tanks), rescuing them from obsolescence; integrated communication systems for effective battlefield management; avionics and other dual-use technologies derived from Israel's own industrial experience; electro-optics, guidance and fire-control systems, weapons electronics and target acquisition systems; missile development and delivery systems; expertise in various fields such as intelligence, reconnaissance and antiterrorism.

The advantages are several. First, these are fields in which Israel has already excelled, thus giving it a head-start on other competitors. The Gabriel missile series provides an excellent example suggesting Israel's potential (*See Table 2 on the following page*); the Mazlat mini-RPV is another. Second, the market for such sophisticated hardware is untapped and growing as modernizing armed forces prepare for the automated, computerized battlefield in which C3I precision and smart weapons could prove decisive. Third, there is an additional, indirect benefit in realigning Israel politically with the Western democracies in North America and Western Europe, as well as with the industrializing countries of the Far East who are the logical bidders for these systems and technologies.

Israeli arms planners may wish to consider this intermediate approach. If so, it demands of them and of the military industries complex a major reorientation requiring more specialization, greater efficiency and flexibility, not to mention a higher degree of sensitivity in discriminating client relationships. Here the United States can be influential in encouraging this redirection. Watch for bilateral negotiations aimed at widening joint defense cooperation through SDI project research, American offset purchases of Israeli-made equipment, coproduction, supplies to NATO and possibly the further leasing of such items as the *Kfir* plane for use by the U.S. Navy and Marines in simulation exercises.

Ultimately, however, the challenge is for Israel to rise to the occasion and meet the present test by relying once again on its demonstrated ingenuity in guaranteeing national security. Based on past performance, Israel can be expected to redouble its efforts in the related spheres of military manufacture and export. These are simply too vital; the commitment is deep and the geopolitical, diplomatic and economic stakes are so high that Israel cannot do otherwise.

Table 2: The Gabriel Missile

A family of surface-skimming, ship-to-ship missiles; radar-guided with special homing devices. Introduced in early 1970s, successfully employed in the 1973 Yom Kippur War.

- Gabriel-1, Range: 22km.

- Gabriel-2, Range up to 40 km, over the horizon.

- Gabriel-3, Latest version, operates in 3 modes: fire-and-target, fire-and-control, fire-and-update. Also deployed as an air-launched model with greater range used in Israeli Air Force fighter plane.

Advantages/Facts

- Fitted onto light, small, fast coastal patrol craft and torpedo-missile boats such as the Reshef and Dvora.

- Israel accounts for about 85% of the value of all Third World missile production.

- Among the Shafir, Python, Gabriel and Barak systems, the Gabriel is the best-known.

- Sold to at least seven countries.

- Licensed production in Taiwan, also possibly in South Africa.

- Orders of over $1 billion since first put on market.